

STORAGE PERFORMANCE

For Today's Virtual Data Centers

Virtualization has revolutionized how we build and operate data centers. But storage performance has not been able to keep up, creating I/O bottlenecks that hamper virtualized application performance. A new storage architecture is required, one that breaks free from expensive hardware and lets you scale storage performance easily with demand.

PernixData FVP™ software changes the storage status quo. Our revolutionary Flash Hypervisor software aggregates server flash across a virtualized data center, creating a scale-out data tier for accelerating reads and writes to primary storage. For the first time ever, storage performance can grow independent of storage capacity, giving you unprecedented control over application performance.

Re-Think Storage Performance with the Industry's First Flash Hypervisor:

- Scale-out storage performance independent of storage capacity
- 100% seamless deployment
- Clustered platform compatible with all VMware operations
- Fault-tolerant write acceleration

Scale-Out Performance Independent of Storage Capacity

With FVP software, increased storage performance across an entire data center is as simple as clustering more server Flash. Performance can be based on specific application or Virtual Machine (VM) requirements, as opposed to being tied to storage array requirements. This enables storage performance to truly grow with your virtual infrastructure and individual application needs.

100% Seamless Deployment

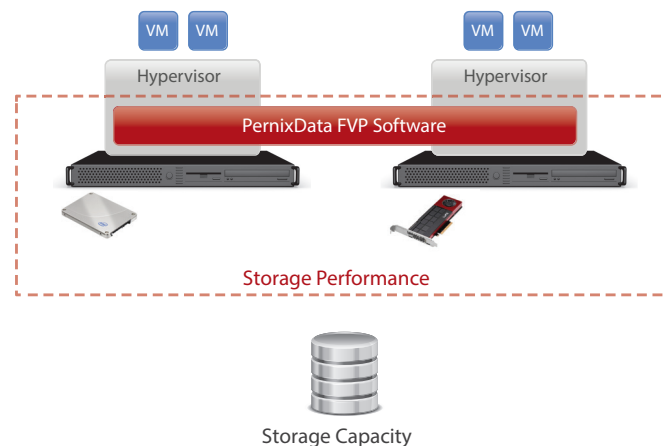
FVP software integrates seamlessly with existing servers, storage, hypervisors and VMs, eliminating the need to rip and replace existing infrastructure. This includes all variants of server Flash (PCIe and SSD) and all storage arrays.

Deployment of the FVP software takes less than 10 minutes, with no reboots or changes required to VMs.

Once installed, IT administrators simply create FVP clusters and assign VMs.

PernixData FVP software is installed within the hypervisor, avoiding performance and management challenges that come with VMs and guest agents. It uses publicly available APIs for easy integration with VMware vSphere.

Figure 1 PernixData FVP software changes the storage status quo by enabling scale-out storage performance independent of capacity.



Clustered Platform Compatible With All VMware Operations

PernixData FVP software uses patent-pending Flash Cluster™ technology to allow any host to remotely access the flash device(s) on any other host. This enables the FVP software to seamlessly support all VMware features and products (such as vMotion, HA and Horizon View) with no changes to workflows and no hits to application, network or storage performance.

Fault-Tolerant Write Acceleration

In addition to read acceleration (with Write Through), PernixData FVP software supports Write Back acceleration with fault tolerance. Leveraging PernixData's Flash Cluster technology, writes are replicated to 1 or 2 hosts in a cluster, ensuring that accelerated writes are protected from data loss. This means FVP software is enterprise-ready and can be used for all workloads, including mission-critical applications like SQL databases, MS Exchange, and more.

The First Flash Hypervisor for Storage Performance

PernixData FVP software represents the next generation in data center storage design. By separating storage performance from capacity, IT teams can easily, predictably and cost-effectively grow storage performance to keep pace with the increasing demands of virtual data centers. PernixData makes scale-out storage performance a reality with the industry's first Flash Hypervisor.

Supported Platforms and Interfaces

SERVER

Server Platforms	<ul style="list-style-type: none">• Cisco UCS series• Dell PowerEdge series• HP DL and BL series	<ul style="list-style-type: none">• IBM xSeries platforms• Any other server platform on VMware HCL*
Flash Devices	<ul style="list-style-type: none">• Fusion-io ioDrive and ioDrive2• Kingston SSDNow e100• Cisco, Dell, HP, and IBM SSDs	<ul style="list-style-type: none">• Intel DC S3700 Series SSD• Toshiba PX03SN• Any other flash device on VMware HCL*
Storage Protocols for Backing Datastores	<ul style="list-style-type: none">• FC and FCoE• iSCSI	
Storage Adapters	<ul style="list-style-type: none">• Any 4, 8 and 16 Gbps FC adapters on VMware HCL*	
Network Adapters	<ul style="list-style-type: none">• Any 1 GbE or 10 GbE adapters on VMware HCL* (Including Cisco, Dell, HP and IBM OEM adapters)	

STORAGE

Storage Systems	<ul style="list-style-type: none">• Any iSCSI, FC and FCoE storage system on VMware HCL* (including DELL, EMC, HDS, HP, IBM and NetApp)	
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SOFTWARE

Hypervisor Versions	<ul style="list-style-type: none">• ESXi 5.0.x, ESXi 5.1.x, ESXi 5.5, VMware Partner Verified and Supported	
VMFS Versions	<ul style="list-style-type: none">• VMFS-3• VMFS-5	
Guest Operating Systems	<ul style="list-style-type: none">• All guest operating systems and virtual storage adapters compatible with aforementioned hypervisor versions.	
Management Server Database	<ul style="list-style-type: none">• Microsoft SQL Server 2012, 2008, Microsoft SQL Server 2008 Express, or Microsoft SQL Server 2012 Express	

* VMware Hardware Compatibility Guide: <http://www.vmware.com/resources/compatibility/search.php>